



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,205	09/24/2001	Goro Tamai	GP-300567	6870
7590 04/07/2005		EXAMINER		
CHRISTOPHER DEVRIES			AVERY, BRIDGET D	
General Motors Corporation Legal Staff			ART UNIT	PAPER NUMBER
P.O. Box 300, Mail Code 482-C23-B21			3618	
Detroit, MI 48265-3000			DATE MAILED: 04/07/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Ammit - 4' M-	A				
	Application No.	Applicant(s)				
Office Action Summary	09/961,205	TAMAI ET AL.				
Office Action Summary	Examiner	Art Unit				
	Bridget Avery	3618				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be tim within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from to cause the application to become ABANDONE	ely filed will be considered timely the mailing date of this co (35 U.S.C. § 133).				
Status						
1)⊠ Responsive to communication(s) filed on 13 Ja	nuary 2005.					
2a)⊠ This action is FINAL . 2b)□ This	action is non-final.					
	· · · · · · · · · · · · · · · · · · ·					
Disposition of Claims						
4) ⊠ Claim(s) <u>25-30</u> is/are pending in the application 4a) Of the above claim(s) is/are withdray 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) <u>25-30</u> is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/or	vn from consideration.					
Application Papers						
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) acce Applicant may not request that any objection to the of Replacement drawing sheet(s) including the correction 11) The oath or declaration is objected to by the Ex	epted or b) objected to by the Edrawing(s) be held in abeyance. See ion is required if the drawing(s) is obj	37 CFR 1.85(a). ected to. See 37 CF	• •			
Priority under 35 U.S.C. § 119						
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal Pa	te	h-152)			
Paper No(s)/Mail Date	6) Other:	atom Apphoauon (F 10				

DETAILED ACTION

1. The response filed by applicant on January 13, 2005 is acknowledged and has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 2. Claims 25-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawakatsu (US Patent 4,335,429).

Kawakatsu teaches a propulsion system controller for use in a hybrid vehicle including: a motor/generator (5, 7) for providing starting force to an internal combustion engine (1) in a first mode of operation and for generating an electrical charge in a second mode of operation (as described in column 6, lines 50-63 and column 21, lines 60-64); a first operating system, the first operating system capable of varying the prime pulse to an internal combustion engine (1) and the starting force applied to the internal combustion engine (150) by the motor/generator (200) (as described in column 8, lines 43-55 and column 21, lines 58-67), the operating system capable of varying the starting force and the prime pulse according to engine coolant temperature and battery state-of-charge (see column 11, lines 42-68 and column 12, lines 1-20); a second operating

Application/Control Number: 09/961,205

Art Unit: 3618

system, the second operating system varying the state of operation of the motor/generator (5, 7) during a starting sequence of the internal combustion engine (1), the first operating system and the second operating system instructing the motor/generator (5, 7) to operate in between the first and the second modes of operation (between the starting mode and the generating mode); a third operating system, the third operating system varying a degree of electric power being used to drive the vehicle, the degree of electric power corresponding to sensed vehicle operating conditions; a means (see column 7, lines 39-68) for sensing the state-ofcharge of an electric storage medium (23), the means for sensing state-of-charge of the electric storage medium (23) capable of being operated by the first operating system; and a means (see column 6, lines 33-44) for sensing the temperature of an engine coolant of an internal combustion engine (1), the means for sensing the temperature of the engine coolant capable of being operated by the first operating system. The method of varying the state of propulsion and the method of controlling a hybrid powertrain, which includes: determining if an engine starting command has been requested: sensing the state-of-charge of an electric storage medium; sensing the temperature of an engine coolant of an internal combustion engine; sensing the temperature of the electric storage medium; determining if a fault condition is present, as described in column 9, lines 63-67; sensing the operating condition of a motor/generator; controlling the motor/generator operation based upon the state-of-charge and the temperature of the internal combustion engine; varying the starting speed of the motor/generator in the first mode in response to the state of charge of the electric storage medium; varying a

Application/Control Number: 09/961,205

Art Unit: 3618

prime pulse to the internal combustion engine in response to the state of charge of the electric storage medium, and controlling the transmission based upon the operations of the motor/generator is also taught by Kawakatsu. See column 9, lines 13-67 and column 11, lines 42-67.

Page 4

Response to Arguments

3. Applicant's arguments filed January 13, 2005 have been fully considered but they are not persuasive. Contrary to applicant's remarks, the Examiner has not confused detecting motor generator temperature with the detection of engine coolant temperature. Kawakatsu clearly teaches a "signal ENO [that] indicates the engine is incapable of operating in the automatic control mode, the signal ET is a signal indicating that the engine temperature exceeds a predetermined value" which is evidence of Kawakatsu "varying the degree of electrical power to drive said vehicle based on the engine coolant temperature" since Kawakatsu is capable of determining that the engine is incapable of delivering any power to drive the vehicle based on the engine being overheated, as described in column 11, lines 42-58. The teachings in Kawakatsu regarding the detection of the motor generator temperature, as discussed in column 12. lines 1-20 further clarifies how Kawakatsu uses the driving circuits (79e associated with the engine temperature signal, 79m, and 79g) to control output, as described in column 12, lines 10-20. It is the Examiner's position that the provision of a high level output, as taught in column 12, line 11, is varied if the driving circuit, in response to the signals taught by Kawakatsu, provides no output, as taught in column 11, line 55. Applicant's

Art Unit: 3618

attention is also directed to Figures 3, 4 and 7; columns 14, lines 65-68 and column 15, lines 1-7.

Conclusion

4. Any inquiry concerning this communication should be directed to Bridget Avery at telephone number 703-308-2086.

March 31, 2005

CYRETOTION R FILES
CUSTOCOCK STORY CORRES
HIGHEOLOGY CORRES 5000